

REMARKS/ARGUMENTS

The ongoing allowance of Claims 43-45 is noted.

Independent Claims 1, 23 and 33 have been further revised better to distinguish over the cited art. Previously-canceled Claims 7, 9 and 28 have been reinserted as new Claims 46-48, respectively. Claim 14 has been canceled in light of the change to Claim 1. Minor self-evident changes have been made in Claims 5, 10, 15-20, 26, 27, 35, 44, and 45. Thus, the claims before the Examiner are Claims 1-6, 8, 10-13, 15-17, and 29-48.

The rejection of Claims 1-4, 8, 10, 11, 13, and 23 under 35 U.S.C. §102 as anticipated by Hachmuth et al. '234, if applied to the claims as amended, is respectfully traversed.

Claim 1 has been amended to specify that the gas stream is an offgas stream resulting from an epoxidation process, the process comprising reacting an olefin with a hydroperoxide to give a product stream as disclosed on page 10, lines 8-11. The independent claim also states that (1) the product stream includes olefin, olefin oxide and solvent (see the disclosure at page 13, lines 32-39) and (2) the olefin oxide is separated from the product stream by distillation. See the specification at page 14, lines 1-2 and 11-12. See also original Claim 14, which supports most of the indicated changes. The claim also states that at least one inert gas is introduced (see page 15, line 6) to give an offgas stream comprising the olefin (see page 15, lines 11-12), solvent (see page 15, line 28), the at least one inert gas (see page 15, lines 21-23), and 10 wt.% of oxygen or less (see page 15, lines 16-17). The claim further has been amended to specify that (1) the absorption of the olefin in step (ii) is carried out in an absorption unit (see page 17, lines 24-25) and (2) no inert gas is additionally added to the absorption unit (see page 17, lines 34-36). As indicated above, similar changes have been made in independent Claims 23 and 33.

The recited claims patentably distinguish over Hachmuth '234 because Claim 1 contains limitations taken from now-canceled Claim 14, a claim not part of this rejection.

Moreover, the reference teaches a process involving separation of an effluent from a dehydrogenation step that produces polymerizable olefins, hydrogen, and undesirable lighter olefins into (1) a fraction containing polymerizable olefins and (2) a fraction containing hydrogen, methane, and lighter olefins by compressing and cooling the effluent several times; see page 1, column 2, lines 36-46. An absorption step is used to separate the lighter olefins from the fraction.

The Hachmuth '234 process involves basically nonpolar components in which an olefin is separated from the effluent of a dehydrogenation step. The process is different from that of the present invention which involves treating a gas stream from an epoxidation process. The claims patentably define over the reference and the rejection should be withdrawn.

The rejection of Claims 1-6, 12, 14-21, 24-27 and 29-42 under 35 U.S.C. §103 as unpatentable over Hachmuth '234 in view of Jubin, Jr. et al. '885, if applied to the claims as revised, is also respectfully traversed.

The claims patentably distinguish over Hachmuth '234 for the reasons given above. The Examiner asserts that it would have been obvious to combine the teachings of the primary reference and the secondary reference, the latter said to show an absorption process to absorb propylene from the purged gas of propylene oxide production processes to arrive at the present invention. Applicants respectfully disagree and submit that the references have been combined following a hindsight consideration thereof after reading the present specification and claims.

There is nothing in Jubin, Jr. et al. '885 regarding separating an olefin oxide by distillation wherein at least one inert gas is added in the distillation step, the gas stream is compressed and cooled, and the olefin is absorbed from a compressed and cooled gas stream. Jubin, Jr. et al. '885 relates to the recovery of (1) oxygen formed by hydrogen peroxide

decomposition during olefin epoxidation and (2) the olefin. The olefin and hydrogen peroxide are catalytically reacted to form both an olefin epoxide-containing liquid epoxidation mixture and a purge stream containing oxygen and an olefin, the latter stream being removed from the reactor and contacted directly with an absorbent liquid, e.g., isopropanol, and water to absorb unreacted olefin while an inert gas, e.g., methane, is added to prevent flammable oxygen-containing gas compositions from being formed; see column 2, lines 53-61. In the present invention, the epoxidation process gives a product stream (not a purge stream and a liquid epoxidation mixture) containing olefin, olefin oxide, and solvent. Olefin oxide is removed by distillation while an inert gas is added. The offgas stream containing olefin, solvent, at least one inert gas, and no more than 10 wt.% oxygen is compressed and cooled. The olefin is separated from the offgas stream in an absorption unit to which no inert gas is additionally added.

The primary reference and the secondary reference concern totally different reactions (dehydrogenation and epoxidation) involving different gas compositions. Flammable oxygen vapor mixtures are readily formed from an epoxidation process gas stream; see Jubin, Jr. et al. '885 at column 3, lines 49-51. Such a disclosure would lead a person of ordinary skill in the art away from compressing and cooling such a gas stream. In Jubin, Jr. et al. '885, propylene is preferably absorbed from the purge stream containing oxygen and propylene using a process stream containing isopropanol and water. Non-preferred absorbing liquids include heptane, octane, methanol, and acetone; see column 4, lines 35-40. Hachmuth '234, in contrast, teaches use of a heavy absorption oil. The references are not properly combined. The features of the present claims are not taught or suggested by the cited art and the rejection should be withdrawn.

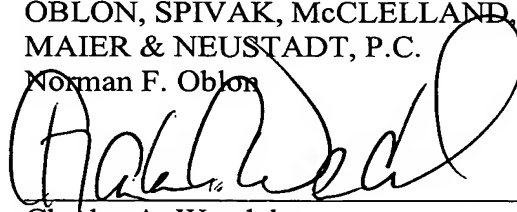
The Examiner is informed that an Information Disclosure Statement was filed September 22, 2006. The Examiner is requested to consider that paper with the present Reply.

In view of the foregoing revisions and remarks, it is respectfully submitted that the application is in condition for allowance and a USPTO paper to those ends is earnestly solicited. The Examiner is requested to telephone the undersigned should additional changes be required in the case prior to allowance.

Respectfully submitted,

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A large, stylized handwritten signature in black ink, likely belonging to Charles A. Wendel, is written over the printed name and extends across the signature line.

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